

ABSTRACT OF THE DISCLOSURE

A photoresist (6) is formed on an element isolation insulating film (2) so as to cover the upper and side surfaces of a polysilicon film (4R) which functions as a resistance element. With the photoresist (6) as an implantation mask, n-type impurities (7) such as phosphorus are ion-implanted from a direction substantially normal to the upper surface of a silicon substrate (1). The dose is in the order of $10^{13}/\text{cm}^2$. Through this processing, an LDD region (8) of MOSFET is formed inside the upper surface of the silicon substrate (1) within a transistor forming region. The impurities (7) are also implanted in a polysilicon film (4G). On the other hand, as the polysilicon film (4R) is covered by the photoresist (6), the impurities (7) are not implanted into the polysilicon film (4R).